

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-9. (Cancelled).

10. (Currently Amended) An assay for detecting a mammalian troponin molecule in animal feed a sample, the assay comprising:

- a) reacting the animal feed sample with a ligand that is specific for the mammalian troponin molecule and not specific for an avian troponin molecule for a time and under conditions sufficient to form a complex between the ligand and the mammalian troponin molecule; and
 - b) detecting the complex either directly or indirectly as a measure of the presence or amount of the troponin molecule in the animal feed sample; and,
- wherein the ligand is an antibody produced by immunizing an animal with a peptide having ~~reacts with or binds to~~ an amino acid sequence selected from the group consisting of SEQ ID NOS: 2-6, 9-13 and 15-35.

11. (Previously Presented) The assay of Claim 10, wherein the mammalian troponin molecule is a troponin I molecule.

12. (Previously Presented) The assay of Claim 10, wherein the mammalian troponin molecule is a troponin I molecule selected from the group consisting of a slow twitch skeletal muscle troponin I molecule and a fast twitch skeletal muscle troponin I molecule.

13. (Previously Presented) The assay of Claim 10, wherein the ligand is an antibody and the troponin molecule is a polypeptide.

14. (Cancelled).

15. (Previously Presented) The assay of Claim 10, wherein the ligand binds to a peptide having an amino acid sequence selected from the group consisting of SEQ ID NOS: 2-6, 9-13, and 15-35.

16. (Previously Presented) The assay of Claim 10, wherein the ligand binds to a nucleic acid molecule encoding a peptide having an amino acid sequence selected from the group consisting of SEQ ID NOS: 2-6, 9-13, and 15-35.

17. (Previously Presented) The assay of Claim 10, wherein the ligand is specific for an equine troponin I protein, a porcine troponin I protein or a bovine troponin I protein.

18. (Cancelled).

19. (Cancelled).

20. (New) An assay for detecting a mammalian troponin molecule in animal feed, the assay comprising:

a) reacting the animal feed with a ligand that is specific for the mammalian troponin molecule and not specific for an avian troponin molecule for a time and under conditions sufficient to form a complex between the ligand and the mammalian troponin molecule; and

b) detecting the complex either directly or indirectly as a measure of the presence or amount of the troponin molecule in the animal feed;

wherein the ligand is specific for an equine troponin I protein, a porcine troponin I protein or a bovine troponin I protein; and,

wherein the ligand is an antibody produced by immunizing an animal with a peptide having an amino acid sequence selected from the group consisting of SEQ ID NOS: 3-6, 9-13 and 15-35.